

LISTING OF CLAIMS

1. (Currently Amended) A method comprising:

executing a target program via a central processing unit (CPU), the target program to include a plurality of branches and to be executed ~~[[in]]~~via a virtual machine, **the virtual machine operatively coupled to a virtual machine monitor;**

configuring the CPU to notify an information collection module (ICM) **included in the virtual machine monitor** via an interrupt when one of the plurality of branches in the target program is taken, ~~wherein the ICM is part of a virtual machine monitor that is coupled to the virtual machine~~ to collect code coverage information about the target program;

recording a branch address when the ICM is notified one of the plurality of branches is taken;

storing the recorded branch addresses in a memory **buffer included in the virtual machine monitor; and**

determining code coverage of the target program based on the branch addresses stored in memory.

2. (Cancelled).

3. (Original) The method of claim 1, further comprising providing the recorded branch addresses to a coverage pattern generation module (CPGM) to interpret and display code coverage statistics.

4-10. (Cancelled).

11. (Currently Amended) An article of manufacture comprising a machine accessible medium including content that when accessed by a machine causes the machine to perform operations including:

executing a target program via a central processing unit (CPU), the target program to include a plurality of branches and to be executed ~~[[in]]~~via a virtual machine, **the virtual machine operatively coupled to a virtual machine monitor;**

configuring the CPU to notify an information collection module (ICM) **included in the virtual machine monitor** via an interrupt when one of the plurality of branches in the target program is taken, ~~wherein the ICM is part of a virtual machine monitor that is coupled to the virtual machine~~ to collect code coverage information about the target program;

recording a branch address when the ICM is notified one of the plurality of branches is taken;

storing the recorded branch addresses in a memory **buffer included in the virtual machine monitor; and**

determining code coverage of the target program based on the branch addresses stored in memory.

12. (Original) The article of manufacture of claim 11, wherein the machine accessible medium further includes content that causes the machine to perform operations comprising providing the recorded branch addresses to a coverage pattern generation module (CPGM) to interpret and display code coverage statistics.

13-20. (Cancelled).

21. (Previously Presented) The article of manufacture of claim 12, wherein the CPGM comprises a graphical user interface (GUI) to accept a source file of the target program and the recorded coverage statistics.

22. (Previously Presented) The method of claim 3, wherein the CPGM comprises a graphical user interface (GUI) to accept a source file of the target program and the recorded coverage statistics.

23. (Currently Amended) A system comprising:

a central processing unit (CPU) to execute a target program to be executed ~~[[in]]~~**via** a virtual machine and including a plurality of branches; and

a virtual machine monitor, coupled to the virtual machine, to collect coverage information about the target program, the virtual machine monitor to include **a memory buffer**, **and** an information collection module (ICM) to

configure the CPU to notify the ICM when one of the plurality of branches in the target program is taken,

record a branch address when the ICM is notified one of the plurality of branches is taken,

store the recorded branch addresses in **the memory buffer**, and

determine code coverage of the target program based on the branch addresses stored in memory.

24. (Previously Presented) The system of claim 23, further comprising a coverage pattern generation module (CPGM) to interpret and display code coverage statistics.

25. (Previously Presented) The system of claim 24, wherein the CPGM comprises a graphical user interface (GUI) to accept a source file of the target program and the recorded coverage statistics.